BASRTL

```
BBBBBBBB      AAAAAA      SSSSSSSS   PPPPPPPP      000000      SSSSSSSS
BBBBBBBB      AAAAAA      SSSSSSSS   PPPPPPPP      000000      SSSSSSSS
BB     BB   AA      AA   SS         PP      PP   00      00   SS
BB     BB   AA      AA   SS         PP      PP   00      00   SS
BB     BB   AA      AA   SS         PP      PP   00      00   SS
BBBBBBBB    AA      AA    SSSSSS    PPPPPPPP     00      00    SSSSSS
BBBBBBBB    AA      AA    SSSSSS    PPPPPPPP     00      00    SSSSSS
BB     BB   AAAAAAAAAA         SS   PP          00      00          SS
BB     BB   AAAAAAAAAA         SS   PP          00      00          SS
BB     BB   AA      AA         SS   PP          00      00          SS    ....
BB     BB   AA      AA         SS   PP          00      00          SS    ....
BBBBBBBB    AA      AA   SSSSSSSS   PP           000000      SSSSSSSS     ....
BBBBBBBB    AA      AA   SSSSSSSS   PP           000000      SSSSSSSS     ....


LL          IIIIII      SSSSSSSS
LL          IIIIII      SSSSSSSS
LL            II       SS
LL            II       SS
LL            II       SS
LL            II       SS
LL            II        SSSSSS
LL            II        SSSSSS
LL            II             SS
LL            II             SS
LL            II             SS
LL            II             SS
LLLLLLLLL   IIIIII     SSSSSSSS
LLLLLLLLLL  IIIIII     SSSSSSSS
```

```
    1    0001   0  MODULE BAS$POS (                                    ! Find the position of a substring
    2    0002   0                      IDENT = '1-005'                  ! File: BASPOS.B32
    3    0003   0                  ) =
    4    0004   1  BEGIN
    5    0005   1  !
    6    0006   1  !*********************************************************************
    7    0007   1  !*                                                                  *
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   25    0025   1  !*                                                                  *
   26    0026   1  !*                                                                  *
   27    0027   1  !*********************************************************************
   28    0028   1
   29    0029   1
   30    0030   1  !++
   31    0031   1  ! FACILITY: String support library
   32    0032   1  !
   33    0033   1  ! ABSTRACT: This module takes 2 input strings of any class and dtype
   34    0034   1  !           and returns the position of the substring in the main string
   35    0035   1  !           starting at an input position
   36    0036   1  !
   37    0037   1  ! ENVIRONMENT: User mode, AST level or not or mixed
   38    0038   1  !
   39    0039   1  ! AUTHOR: R. Will, CREATION DATE: 10-Mar-79
   40    0040   1  !
   41    0041   1  ! MODIFIED BY:
   42    0042   1  !
   43    0043   1  ! R. Will, 10-Mar-79 : VERSION 01
   44    0044   1  ! 01    - original
   45    0045   1  ! 1-002 - Fix bug with starting pos > searched string length.  RW  14-Jul-79
   46    0046   1  ! 1-003 - Correct a typo in edit 002.  JBS 25-JUL-1979
   47    0047   1  ! 1-004 - Make POS agree with DEC BASIC Standard Proposal.  RW  23-Sept-79
   48    0048   1  ! 1-005 - CALL STR$ DELETE THIS MODULE WHEN COMPILER CALLS STR$.  RW 1-NOV-79
   49    0049   1  !--
   50    0050   1
   51    0051   1  !<BLF/PAGE>
```

```
  53    0052  1 !
  54    0053  1 ! SWITCHES:
  55    0054  1 !
  56    0055  1
  57    0056  1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
  58    0057  1
  59    0058  1 !
  60    0059  1 ! LINKAGES:
  61    0060  1 !
  62    0061  1
  63    0062  1 !
  64    0063  1 ! TABLE OF CONTENTS:
  65    0064  1 !
  66    0065  1
  67    0066  1 FORWARD ROUTINE
  68    0067  1     BAS$POS;                                          ! find substring position
  69    0068  1
  70    0069  1 !
  71    0070  1 ! INCLUDE FILES:
  72    0071  1 !
  73    0072  1
  74    0073  1 REQUIRE 'RTLIN:RTLPSECT';                             ! Declare PSECTS code
  75    0168  1
  76    0169  1 !
  77    0170  1 ! MACROS:
  78    0171  1 !
  79    0172  1 !
  80    0173  1 ! EQUATED SYMBOLS:
  81    0174  1 !
  82    0175  1 !
  83    0176  1 ! PSECT DECLARATIONS
  84    0177  1 !
  85    0178  1 DECLARE_PSECTS (BAS);
  86    0179  1 !
  87    0180  1 ! OWN STORAGE:
  88    0181  1 !
  89    0182  1 !
  90    0183  1 ! EXTERNAL REFERENCES:
  91    0184  1 !
  92    0185  1
  93    0186  1 EXTERNAL ROUTINE
  94    0187  1     STR$POSITION;                                     ! do find
```

```
  96      0188  1  GLOBAL ROUTINE BAS$POS (SRC_DESC,              ! descriptor of string to search
  97      0189  1         SUB_DESC,                               ! descriptor of string to find
  98      0190  1         START_POS                               ! value of position to start search
  99      0191  1      ) : =
 100      0192  1
 101      0193  1  !++
 102      0194  1  ! FUNCTIONAL DESCRIPTION: This routine takes two source strings of any
 103      0195  1  !        dtype and class and finds the position of the substring in the
 104      0196  1  !        source string starting at the input starting position.  The routine
 105      0197  1  !        returns the position of the substring in the source string.
 106      0198  1  !
 107      0199  1  ! FORMAL PARAMETERS:
 108      0200  1  !
 109      0201  1  !       SRC_DESC.rt.dx          pointer to descriptor of string to be searched
 110      0202  1  !       SUB_DESC.rt.dx          pointer to descriptor of string to find
 111      0203  1  !       START_POS.rl.v          value of position in source to begin search
 112      0204  1  !
 113      0205  1  ! IMPLICIT INPUTS:
 114      0206  1  !
 115      0207  1  !       NONE
 116      0208  1  !
 117      0209  1  ! IMPLICIT OUTPUTS:
 118      0210  1  !
 119      0211  1  !       NONE
 120      0212  1  !
 121      0213  1  ! ROUTINE VALUE:
 122      0214  1  ! COMPLETION CODES:
 123      0215  1  !
 124      0216  1  !       FIND_POS.wlu.v          value of start position of substr in src strng
 125      0217  1  !
 126      0218  1  ! SIDE EFFECTS:
 127      0219  1  !
 128      0220  1  !       NONE
 129      0221  1  !
 130      0222  1  !--
 131      0223  1
 132      0224  2      BEGIN
 133      0225  2
 134      0226  2      MAP SRC_DESC : REF BLOCK [8,BYTE],
 135      0227  2          SUB_DESC : REF BLOCK [8,BYTE];
 136      0228  2
 137      0229  2      RETURN STR$POSITION (SRC_DESC [0,0,0,0], SUB_DESC [0,0,0,0], START_POS);
 138      0230  1      END;                                          !End of BAS$POS
```

```
                                                    .TITLE   BAS$POS
                                                    .IDENT   \1-005\

                                                    .EXTRN   STR$POSITION

                                                    .PSECT   _BAS$CODE,NOWRT,  SHR,  PIC,2

                                  0000 00000        .ENTRY   BAS$POS, Save nothing          : 0188
                           OC  AC  9F 00002         PUSHAB   START_POS                      : 0229
                    7E     04  AC  7D 00005         MOVQ     SRC_DESC, -(SP)
        00000000G   00             03  FB 00009     CALLS    #3, STR$POSITION
                                      04 00010      RET                                     : 0230
```

; Routine Size: 17 bytes,   Routine Base: _BAS$CODE + 0000

```
: 139        0231  1
: 140        0232  1 END                                          !End of module
: 141        0233  1
: 142        0234  0 ELUDOM
```

;   PSECT SUMMARY
:
:
:   Name   Bytes   Attributes
:
: _BAS$CODE   17 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

;   COMMAND QUALIFIERS

:   BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS$:BASPOS/OBJ=OBJ$:BASPOS MSRC$:BASPOS/UPDATE=(ENH$:BASPOS)

```
: Size:          17 code + 0 data bytes
: Run Time:         00:01.7
: Elapsed Time:     00:03.8
: Lines/CPU Min:    8407
: Lexemes/CPU-Min: 23353
: Memory Used:  19 pages
: Compilation Complete
```